

REMARKS

The Examiner has rejected claims 1-4 and 10-12 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 7,119,851 to Ono. The Examiner has further rejected claims 5, 6, 8, 9 and 14 under 35 U.S.C. 103(a) as being unpatentable over Ono.

The Ono patent discloses an image processing apparatus and control method thereof, in which a broadcast video stream is applied to a demultiplexer 16, an image decoder 18 and a resolution conversion unit 20 to form a first processed stream. The broadcast video stream is also applied to a harddisk drive 30 which, in turn, applies a transport stream designated by a CPU 62 to a demultiplexer 32, an image decoder 34 and a resolution conversion unit 36 to form a second processed stream.

As noted in MPEP §2131, it is well-founded that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 1 (as well as independent claims 11, 12 and 14) includes "A method of providing a video signal for display of a stream of video data at a rate other than real-time, the stream of

video data being built up from subsequent frames, the method comprising the steps of:

selecting a plurality of non-contiguous segments of the stream of video data, each of said non-contiguous segments comprising multiple subsequent frames;

real-time rendering said plurality of non-contiguous segments in a concatenated manner to form a first rendered stream having a first rate other than real-time;

selecting a plurality of pre-determined non-subsequent frames of said stream of video data;

non-real-time rendering said pre-determined non-subsequent frames in a concatenated manner to form a second rendered stream having a second rate other than real-time; and

multiplexing the first rendered stream and the second rendered stream for simultaneous display on a display device,

wherein the first rendered stream is displayed on a first part of the display device and the second rendered stream is displayed on a second part of the display device; and

wherein the second rate is greater than the first rate and real-time."

The Examiner has indicated that Ono discloses "a real-time rendering step (16, 18, 20), a non real-time rendering step (32, 34, 36), and a multiplexing step (22). The video data stream includes both non-contiguous and contiguous segments. The harddrive storage HDD 30 stores video signal from source 14. The stored video data can be retrieved and reproduced by pressing one of the control

buttons on remote control as shown in Figure 2. For instance, if fast forward button 90 is pressed, the video data would be retrieved in a faster manner than it normally would. Thus, as shown in Figure 6C, the video HDD can have a faster frame rate than the CH6 video when the fast forward button is pressed."

Applicants submit that the Examiner is mistaken. In particular, while Ono arguably discloses "a real-time rendering step", Ono does not disclose or suggest the real-time rendering of non-contiguous segments of the stream of video data. In particular, the real-time rendering step and the non-real-time rendering step of the subject invention form rendered streams which both depict a non-real-time (e.g., fast-forwarding (or fast-rewinding)) of the stream of video data. The real-time rendering step of the subject invention is described in the specification on page 1, lines 15-19, and includes, for example, the selecting of, e.g., a 10-second segment of the stream of video data, skipping ahead by, for example, 2 minutes, selecting another 10-second segment, etc., and rendering the selected 10-second segments in a concatenated manner (i.e., one after the other), while the non-real-time rendering step is described in the specification on page 2, lines 8-15, and includes a non-real-time selection of predetermined non-contiguous frames of the stream of video data, and rendering these predetermined non-contiguous frames in a concatenated manner (this is similar to a standard fast forward (or fast rewind)).

Applicants submit that in Ono, while the video stream from the harddisk drive may be rendered in a fast-forward mode, there is

no disclosure or suggestion that the broadcast video stream processed by the "real-time rendering step" is capable of a rate other than real-time.

With regard to the claim limitations "selecting a plurality of non-contiguous segments of the stream of video data, each of said plurality of non-contiguous segments comprising multiple subsequent frames" and "real-time rendering said plurality of non-contiguous segments in a concatenated manner to form a first rendered stream having a first rate other than real-time", the Examiner indicates that in Ono, "the tuner 12 meets the selecting step as claimed since the tuner 12 selects and receives a television program from antenna 10. The television program is made up of non-contiguous segments of video data. The image decoder 18 and resolution conversion 20 together meet the real-time rendering step as claimed since these two circuits process the video stream in real-time."

While the television programming selected by the tuner includes non-contiguous programming segments, this concerns the content of the television programming. However, the stream of video data forming the television programming, regardless of the content, includes a continuous stream of subsequent frames. The claim limitation "selecting a plurality of non-contiguous segments of the stream of video data, each of said plurality of non-contiguous segments comprising multiple subsequent frames" refers to selecting groups of subsequent frames (without regard to content) from this continuous stream of subsequent frames in which the groups are not

adjacent to each other. Applicants submit that the tuner of Ono does not perform this type of selecting.

Further, in the claim limitation "real-time rendering said plurality of non-contiguous segments in a concatenated manner to form a first rendered stream having a first rate other than real-time", while each of the plurality of non-contiguous segments is rendered in real-time, since the rendering of the segments is done in a concatenated manner (one after the other), this produces a first rendered stream having a rate other than real-time. Applicants submit that the image decoder 18 and resolution conversion 20 of Ono are not capable of performing this limitation.

Hence, in effect, what is being generated for display, in the subject invention, is two video streams, both depicting non-real-time rendering of the original stream of video data in two different manners, the first being concatenated "snippets" of the stream of video data, in which each snippet is rendered in real-time, and the second being a "standard" non-real-time rendering of the stream of video data (i.e., the selected rendering of predetermined non-contiguous frames of the stream of video data). The advantage of this arrangement is that, being able to hear the corresponding audio information can very advantageous for the user to being able to orient himself with the location in the video stream during reproduction at a rate other than real-time. While in the second rendered stream, the reproduction of the corresponding audio is problematic if not impossible, in the first rendered stream, reproduction of the corresponding audio is achievable since

each of the plurality of non-contiguous segments is rendered in real-time.

With regard to the fast-forward (as initiated by key 90) or fast-rewind (as initiated by key 86), while the Examiner indicates that these keys enable the harddrive to produce fast rolling video frames by skipping some of the frames, this is only presumed by the Examiner; Ono does not explain how the fast-forward or fast-rewind functions are achieved (perhaps separate video streams are accessed on the harddrive).

In view of the above, Applicants believe that the subject invention, as claimed, is neither anticipated nor rendered obvious by Ono, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-6, 8-12 and 14, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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